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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/822,043 | 03/30/2001 | Adrian Evans Conway | 00-3008 | 8439 |
| 32127 | 7590 | 06/14/2005 | EXAMINER | |
| VERIZON CORPORATE SERVICES GROUP INC. C/O CHRISTIAN R. ANDERSEN 600 HIDDEN RIDGE DRIVE MAILCODE HQEO3H14 IRVING, TX 75038 | | | KADING, JOSHUA A | |
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| | | 2661 | | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|------------------------|----------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 09/822,043 | CONWAY, ADRIAN EVANS |
| | Examiner | Art Unit |
| | Joshua Kading | 2661 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 04 January 2005.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-31 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-31 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 04 January 2005 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 5,343,463, van Tetering et al. (van Tetering).

Regarding claim 1, van Tetering discloses “a method for determining subjective quality of a packetized media data stream having packets of encoded data, each of said packets having a header portion and a data portion each having content comprising the following steps: copying a portion of said packetized media data stream to obtain copied packets (*col. 1, lines 64-68*); replacing the content of the data portion of said copied packets with a packetized known test signal, said copied packets thereby comprising a pseudo-media stream (*col. 1, lines 64-68 where the contents of the test signal are further described in col. 5, lines 3-12 which specifically states the data portion of the packets are replaced with testing information*); determining subjective quality of said pseudo-media stream (*col. 5, lines 54-60*); and using said subjective quality of said pseudo-media stream, to determine subjective quality of said packetized data stream (*col. 3, lines 6-13 where the purpose of using the testing information in van Tetering is to determine the subjective quality of the data stream*).”

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 2-4, 9-16, 18-26, and 28-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over van Tetering in view of U.S. Patent 6,360,271 B1, Schuster et al. (Schuster).

Regarding claim 3, van Tetering discloses, "a method for determining subjective quality of a packetized data stream having packets of encoded data, each of said packets having a header portion and a data portion each having some content, comprising the following steps: copying a portion of said media stream to obtain copied packets (*col. 1, lines 64-68*); emptying data content of the data portion of each copied packet (*col. 1, lines 64-68 where the contents of the test signal are further described in col. 5, lines 3-12 which specifically states the data portion of the packets are emptied and replaced with testing information*); loading a known test signal into each empty packet (*col. 5, lines 3-12*); and determining said subjective quality of said pseudo-media signal that represents the subjective quality of said packetized data stream (*col. 5, lines 54-60*)."

However, van Tetering lacks what Schuster discloses, "time stamping each packet included within said packetized data stream as it is copied (*col. 2, lines 57-60*);

using said time stamping to maintain a temporal sequence of the loading to produce a pseudo-media stream (*col. 2, lines 57-60*); depacketizing and decoding said pseudo-media stream to obtain a pseudo-media signal (*figure 2, elements 34 and 46 show decoding and depacketizing*)."

It would have been obvious to one with ordinary skill in the art at the time of invention to include the time stamping, decoding, and decoding for the purpose of temporally sequencing the packets (*Schuster, col. 2, lines 58-60*) so that they may be decoded properly. The motivation for sequencing is so that the packets are reassembled properly at the receiving end.

Regarding claim 9, van Tetering discloses, "a system for measuring subjective quality of a real-time packetized media stream in a packet-switching network comprising: means for copying a portion of said media stream from said packet-switching network (*col. 1, lines 64-68*); means for emptying a payload portion of selected packets from said copied media stream portion, resulting in empty payload portions of the selected packets (*col. 1, lines 64-68 where the contents of the test signal are further described in col. 5, lines 3-12 which specifically states the data portion of the packets are emptied and replaced with testing information*); means for reloading the empty payload portions of the selected packets with a known media signal to produce a pseudo-media stream (*col. 5, lines 3-12*); and means for measuring the subjective quality of said pseudo-media signal and in turn the subjective quality of said packetized media stream (*col. 5, lines 54-60*)."

However, van Tetering lacks what Schuster discloses, "means for depacketizing and decoding said pseudo-media stream to produce a pseudo-media signal (*figure 2, elements 34 and 46 show decoding and depacketizing*)."

It would have been obvious to one of ordinary skill in the art at the time of invention to include the depacketizing and decoding for the purpose of processing the received data into a useful format. The motivation for processing the data into a useful format is so that it may be reconstructed into the originally sent message.

Regarding claims 14, 16, and 20 van Tetering discloses, "an apparatus for measuring subjective quality of the information contained in a single packetized data stream included in a multi-source packetized data stream comprising: a first device for copying a portion of said multi-source packetized data stream (*col. 1, lines 64-68*); a second device for separating a single packetized data stream from said copied portion of said multi-source packetized data stream (*col. 1, lines 64-68 where the device only operates on a single packet at a time and only takes this packet from one stream at a time*); a third device for replacing the information content of each copied packet with a known signal to create a pseudo-media stream (*col. 1, lines 64-68 where the contents of the test signal are further described in col. 5, lines 3-12 which specifically states the data portion of the packets are emptied and replaced with testing information*); and a fifth device for measuring the subjective quality of said pseudo-media signal and in-turn the subjective quality of the information contained in said single packetized data stream (*col. 5, lines 54-60*)."

However, van Tetering lacks what Schuster discloses, "a fourth device for depacketizing and decoding said pseudo-media stream to produce a pseudo-media signal (*figure 2, elements 34 and 46 show decoding and depacketizing*)."

It would have been obvious to one of ordinary skill in the art at the time of invention to include the depacketizing and decoding for the purpose of processing the received data into a useful format. The motivation for processing the data into a useful format is so that it may be reconstructed into the originally sent message.

Regarding claim 2, van Tetering lacks what Schuster discloses, "each packet copied from said packetized data stream is time stamped and said time stamping is used to control the temporal relationship between said copied portion of said packetized media data stream and said pseudo-media stream (*col. 2, lines 57-60*)."
It would have been obvious to one with ordinary skill in the art at the time of invention to include the time stamping for the purpose of temporally sequencing the packets (*Schuster, col. 2, lines 58-60*).
The motivation for sequencing is so that the packets are reassembled properly at the receiving end.

Regarding claim 4, Schuster lacks what van Tetering discloses, "determining packetization methodology used to packetize said data stream (*col. 5, lines 54-60 where the packets are distinguishable based on whether they are idle, "regular," or test packets, each being packetized differently*); and utilizing said packetization methodology to packetize said known test signal prior to loading said known test signal into said

empty packets (*col. 5, lines 54-60*).” It would have been obvious to one with ordinary skill in the art to include the packetization methodology for the same reasons and motivation as in claim 3.

Regarding claim 10, van Tetering lacks what Schuster discloses, “means for time stamping each packet copied from said media stream (*col. 2, lines 57-60*), and means for using said timestamp on said copied packet to coordinate the loading of said known media signal into said emptied packets (*col. 2, lines 57-60 where the timestamp places the packets in a temporal order for loading of the testing data of van Tetering*).” It would have been obvious to one with ordinary skill in the art at the time of invention to include the time stamping, decoding, and decoding for the purpose of temporally sequencing the packets (*Schuster, col. 2, lines 58-60*) so that they may be decoded properly. The motivation for sequencing is so that the packets are reassembled properly at the receiving end.

Regarding claims 15 and 18, Schuster lacks what van Tetering discloses, “said third device empties the information content of each packet of said separated single packetized data stream and loads a packetized known test signal into said empty packets (*col. 1, lines 64-68 where the contents of the test signal are further described in col. 5, lines 3-12 which specifically states the data portion of the packets are emptied and replaced with testing information*).” It would have been obvious to one of ordinary

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skill in the art at the time of invention to include the emptying the packet and loading the test packet for the same reasons and motivation as in claims 14 and 16.

Regarding claims 11, 12, 13, and 19, Schuster lacks what van Tetering discloses, "means for determining the encoding/decoding and packetization/depacketization methods used with the copied packets in said media stream (*col. 5, lines 54-60 where the packets are distinguishable based on whether they are idle, "regular," or test packets, each being packetized and encoded (such as for video as disclosed in van Tetering) differently*); and means for using encoding/decoding and packetization/depacketization methods in handling the packets of the known media signal in the preparation of said pseudo-media stream (*col. 5, lines 54-60*)."
It would have been obvious to one with ordinary skill in the art to include the determining of encoding and decoding scheme for the same reasons and motivation as in claims 9 and 16.

Regarding claim 21, Schuster lacks what van Tetering discloses, "said copied segment of the packetized media stream is stored in a memory (*col. 1, lines 64-68 where the copied packets must be stored in memory to prevent them from becoming lost*)."
It would have been obvious to one with ordinary skill in the art to include the memory for storing the copied segments for the same reasons and motivation as in claim 20.

Regarding claims 22, 23, and 24, van Tetering lacks what Schuster discloses, “said second device encodes and packetizes the known test signal (*figure 2, element 24 the encoder/packetizer will inherently know the coding and packetizing schemes because that is their primary function, they must know them*).” It would have been obvious to one with ordinary skill in the art to include the determining of the encoding and packetization of the test signal for the same reasons and motivation as in claim 20.

Regarding claims 25, 26, 28, 29, 30, and 31, van Tetering lacks what Schuster discloses, “means for measuring the subjective quality of said pseudo-media stream comprises a signal comparator with the packetized known test signal (*col. 5, lines 27-35 where although a signal comparator is not specifically disclosed, there must be some sort of comparator present as that is what is described*).” It would have been obvious to one of ordinary skill in the art at the time of invention to include the comparator for the purpose of measuring network transmission delay. The motivation for measuring network transmission delay is to know the state of the network and if there are any congestion problems indicated by long delays.

5. Claims 5-8, 17, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over van Tetering et al. and Schuster et al., and in further view of U.S. Patent 5,127,001, Steagall et al. (Steagall).

Regarding claim 8, van Tetering discloses, "a method for determining subjective quality of a multi-media-source packetized data stream of packets each having data content, said method comprising the following steps: copying a portion of said multi-media-source packetized data stream to obtain copied packets (col. 1, lines 64-68); selecting a media stream from said separated multi-media stream to obtain a selected media stream (col. 1, lines 64-68 *where the device only operates on a single packet at a time and only takes this packet from one stream at a time thus only one media stream is selected at a time*); replacing said data content of each copied packet in said selected media stream with a packetized known test signal while maintaining the sequence of said copied packets to produce a pseudo-media stream (col. 1, lines 64-68 *where the contents of the test signal are further described in col. 5, lines 3-12 which specifically states the data portion of the packets are emptied and replaced with testing information*); identifying encoding/decoding and packetization/depacketization methods used on said selected media stream (col. 5, lines 54-60 *where the packets are distinguishable based on whether they are idle, "regular," or test packets, each being packetized and encoded (such as for video as disclosed in van Tetering) differently*); and measuring subjective quality of said pseudo-media signal to determine subjective quality of said selected media stream (col. 5, lines 54-60)."

However, van Tetering lacks what Schuster discloses, "time stamping each of said copied packets to obtain time stamped copied packets (col. 2, lines 57-60); depacketizing and decoding said pseudo-media stream using said time stamped copied packets to maintain the same temporal sequence as that with which the packets were

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originally copied to produce a pseudo-media signal (*figure 2, elements 34 and 46 show decoding and depacketizing*)."

It would have been obvious to one with ordinary skill in the art at the time of invention to include the time stamping, decoding, and decoding for the purpose of temporally sequencing the packets (*Schuster, col. 2, lines 58-60*) so that they may be decoded properly. The motivation for sequencing is so that the packets are reassembled properly at the receiving end.

van Tetering and Schuster however, further lack what Steagall discloses, "separating said copied packets according to their respective media sources to obtain a separated multi-media stream (*col. 8, lines 60-62*)."

It would have been obvious to one with ordinary skill in the art at the time of invention to include the separating of copied data for the purpose of storing the packets from different sources in a respective buffer. The motivation for storing the messages in queues according to source is to effectively synchronize the voice packets coming in to avoid delays (*Steagall, col. 10, lines 29-32*).

Regarding claim 27, van Tetering and Steagall lack what Schuster discloses, "measuring the subjective quality of said pseudo-media stream includes inputting the pseudo-media stream into a signal comparator with the packetized known test signal (*col. 5, lines 27-35 where although a signal comparator is not specifically disclosed, there must be some sort of comparator present as that is what is described*)." *It would have been obvious to one with ordinary skill in the art at the time of invention to include*

the separating of copied data by source identifier for the purpose of storing the packets from different sources in a respective buffer. The motivation for storing the messages in queues according to source is to effectively synchronize the voice packets coming in to avoid delays (*Steagall, col. 10, lines 29-32*).

Regarding claims 5 and 17, van Tetering and Schuster lack what Steagall further discloses, "said second device reads a source identifier contained in each copied packet; and diverts selected packets having a common source identifier (*col. 8, lines 60-62 whereby separating the packets by a source identifier allows each packet to be diverted to its respective buffer*)."
It would have been obvious to one with ordinary skill in the art to include the source identifier and diverting for the same reasons and motivation as in claim 16.

Regarding claim 6, van Tetering and Steagall lack what Schuster further discloses, "said header portion of each copied packet includes a sequence number and said sequence number is used to determine which packetized known test signal packet replaces a copied media stream packet for said pseudo-media stream (*col. 1, lines 56-60 where the time stamped of the packet is something added to the packet that further identifies as a test signal as disclosed in van Tetering, col. 5, lines 3-9*)."
It would have been obvious to one with ordinary skill in the art to include the sequence number for the same reasons and motivation as in claim 5.

Regarding claim 7, van Tetering and Steagall lack what Schuster further discloses, "order of the sequence numbers is maintained in substituting said packetized known test signal for the data contained in each copied packet (*col. 1, lines 56-60*).” It would have been obvious to one with ordinary skill in the art to include the maintaining of the order for the same reasons and motivation as in claim 5.

Response to Arguments

6. Applicant's arguments, see REMARKS, page 11, paragraph 1, filed 4 January 2005, with respect to the objection to the drawings have been fully considered and are persuasive. The objection to the drawings has been withdrawn.
7. Applicant's arguments, see REMARKS, page 13, second full paragraph, lines 11-12 of the paragraph, filed 4 January 2005, with respect to the rejections of claims 1-24 under 35 U.S.C. 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of newly found prior art.
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua Kading whose telephone number is (571) 272-3070. The examiner can normally be reached on M-F: 8:30AM-5PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on (571) 272-3126. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Joshua Kading
Examiner
Art Unit 2661

June 3, 2005



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